



**BRIEFING: June 6, 2013 Board Meeting Agenda Item # 2**

**TO:** Chairman Richard and Board Members

**FROM:** Frank Vacca, Chief Program Manger  
Tom Fellenz, Chief Counsel

**DATE:** June 6, 2013

**RE:** Proposal to Delegate Authority to the CEO to Negotiate Final Terms of the Design/Build Contract for Construction Package 1

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**Introduction**

As reported to this Board at its May meeting, on April 12, 2013, the California High-Speed Rail Authority (Authority) identified Tutor Perini/Zachry/Parsons, a Joint Venture, as the apparent Best Value proposer for the Construction Package 1(CP 1) design-build contract. At that meeting, it was reported to the Board that the procurement process was still in process and subject to negotiation and finalization.

The CP 1 procurement process is ready for contract award. As set forth below, the Board is now requested to confirm the finding of the Evaluation Selection Committee and the recommendation of the CEO that Tutor Perini/Zachry/Parsons is the Best Value proposer for the CP 1 design-build contract. The Board is further requested to authorize the CEO to take those steps necessary to enter into a design-build contract with Tutor Perini/Zachry/Parsons including the execution thereof on behalf of the Authority.

**Background**

*Description of Construction Package 1*

The Authority's CP 1 will extend for approximately 30 miles in the San Joaquin Valley. Its northern terminus will be at Avenue 17 in Madera County north of the Fresno River. Subject to environmental clearance, its southern terminus will be in the City and County of Fresno at East American Avenue.

The contract for CP 1 was carefully developed to account for the fact that portions of the project fall within the Merced-Fresno EIR/EIS and portions fall within the Fresno-Bakersfield EIR/EIS. The environmental process was completed and the Authority is able to commence construction on the Merced-Fresno section as a result of the Board's Notice of Determination in May 2012 and receipt of notice of the federal Record of Decision in September 2012. The environmental

process for the Fresno-Bakersfield section is proceeding toward completion which is anticipated to be in early 2014.

The Merced-Fresno environmental documents extend as far south as Santa Clara Street in Fresno. To ensure that no final design or construction occurs until final environmental approval is obtained on any parcel of land, a separate Notice to Proceed is provided for in the CP 1 contract for work south of Santa Clara Street. In the event that environmental clearance is not obtained for these elements of CP 1 then Notice to Proceed for the work will not be given by the Authority to the design-build contractor.

The Authority's original estimate of the total value of the CP 1 contract was \$1.5 to \$2.0 billion as published in RFP No. HSR 11-16. During the course of the procurement and as a result of more detailed development of the project, the estimate of the total value of the contract was \$1.2 to \$1.8 billion in the final RFP documents.

### *The Authority's Design-Build Contract*

As described in previous Board presentations, CP 1 will be designed and constructed by means of a design-build contract. California Public Utilities Code section 185036(a) specifically authorizes the Authority to use this delivery method.

Design-build procurements seek to obtain the best overall value for the project owner. For CP 1 both price and technical merit were considered. The proposer with the best overall score is deemed the best value proposer. As a result, neither the low price proposer nor the proposer with the highest technical merit is assured of winning the contract.

Design-build is a commonly used delivery method on major infrastructure projects, and is increasingly used on large and/or complex projects. By positioning the design engineer and the general contractor on the same team working under one contract, many of the disputes and delays which often occur when these two entities are working under separate contracts can be avoided. Further, working as a team, the designer and the contractor can often obtain cost savings and schedule efficiencies.

The design-build contract for CP 1 will be a voluminous document that will lay the foundation for much of the Authority's future work. General Provisions have been developed that will be in large measure the same General Provisions that will be used in all of the Authority's future construction contracts.

The design-builder will begin its final design process based on the preliminary engineering done by the Authority's Regional Consultants. This preliminary engineering was used to obtain environmental clearance for the project. By including it as part of the contract, further assurance is given that construction will be consistent with environmental approvals. Final design by the design-builder must be consistent with extensive technical specifications and guidelines which also are part of the design-build contract.

In addition to the technical specifications and General and Special Provisions for construction, the design-build contract will include all of the important policies and requirements passed by this Board. The Small Business Policy, Environmental Mitigation Monitoring and Reporting

Program, Mitigation Monitoring and Enforcement Program, Community Benefits Agreement and Conflict of Interest Policy are all contractually binding elements of the design-build contract.

The design-build procurement for CP 1 was conducted in a two-step process which is standard on major infrastructure projects. The first step involves shortlisting qualified design-build teams to receive Requests for Proposals. The second step is receiving Proposals, including price proposals, from the previously qualified teams and determining the Best Value proposal.

*Review of “Step One” in the Procurement of the CP 1 Design-Build Contract*

The first step in procuring CP 1 was the issuance of a Request for Qualifications (RFQ) to the design-build construction industry. The response from industry to a RFQ is a Statement of Qualifications (SOQ) which details the financial strength of the principal companies on the team as well as the experience of the companies and key personnel on the team.

RFQs are designed to identify design-build teams which have the financial capacity and technical capability to design and construct the project. Only those teams that are found to be qualified in these ways are eligible to receive the Authority’s Request for Proposal (RFP) for the contract.

The Authority’s Request for Qualifications for CP 1 was issued in November, 2011. Without objection or protest, in January, 2012 five design-build teams submitted their Statement of Qualifications. In alphabetical order, these teams were:

- California Backbone Builders – A joint venture of Ferrovial Agroman US Corporation and Acciona Infrastructure Canada Inc.
- California High-Speed Rail Partners – A joint venture of Fluor Enterprises Inc., Skanska USA Civil Inc. and PCL Civil Constructors, Inc.
- California High-Speed Ventures – A joint venture of Kiewit Infrastructure West Co., Granite Construction Co. and COMSA EMTE USA.
- Dragados/Samsung/Pulice – A joint venture of Dragados USA, Inc., Samsung E&C America, Inc. and Pulice Construction, Inc.
- Tutor Perini/Zachry/Parsons – A joint venture of Tutor Perini Corporation, Zachry Construction Corp. and Parsons Transportation Group, Inc.

Evaluation of the SOQs was conducted by a team of public employees supported by the Authority’s legal, financial and program management consultants. Based on their evaluation, in February, 2012, all five teams were found to be well qualified to deliver the CP 1 work and thus eligible to receive the Authority’s Request for Proposals.

At its March 1, 2012, meeting, this Board unanimously passed its Resolution # HSRA 12-04 entitled “Approval of the Term Sheet, Stipend and RFP scoring criteria for Construction Package 1.”

## **Discussion**

### *Review of “Step Two” in the Process*

The second step in the CP 1 contract process which is now before the Board for consideration is the selection of the design-build team that offers the Authority and the State of California the overall Best Value in delivery of the CP 1 Project.

The procedure and rules for the competition between the five design-build teams were set forth in a document entitled Instructions to Proposers (ITP). The ITP is a section of the CP 1 RFP which was issued by the Authority in March, 2012. The entire RFP, including the ITP, was posted on the Authority’s public website and remained on the website for review by the general public throughout the procurement process.

A key component any Best Value competition is the relative weight accorded the technical portion of the Proposal and the weight accorded the price portion of the Proposal. This decision is typically made by public agencies after consideration of such factors as budget limitations and technical complexity. There are no set rules for this determination, and each public agency must use its best judgment. Relative weights may range from 50% technical/50% price to 10% technical/90% price. Design-build awards can also be made based 100% on price. Of the utmost importance is that the proposers know in advance the weight of each component. In the first issuance of the RFP for the CP 1 contract the Authority advised Proposers that the price component would have a 70% weight and the technical component would have a 30% weight.

The ITP included many provisions specifically designed to ensure the integrity of the procurement process. Among these, the ITP provided for:

- Controlled and limited communications with the Authority to prevent ex parte communications that could provide any team with an advantage;
- Confidentiality and a prohibition on communication between principals of different teams which could lead to allegations of collusion;
- A complete technical description of the project so that all teams had equal access to project information;
- A Request for Information (RFI) process by which the design-build teams could formally submit questions to the Authority with answers to RFIs equally available to all teams;
- A process for the confidential submission of Alternative Technical Concepts (ATC) to encourage teams to explore innovative designs and construction methods and to assure the ATC developer that it would benefit in the proposal process from its efforts;
- A protest procedure designed to expose any perceived legal shortcomings in the RFP or any of the components thereof so that they could be rectified before final Proposals were submitted;
- Instructions to the five Proposers to place their price bid in sealed envelopes which could be separated from their open Technical Proposals.

In addition to these procedural safeguards, the ITP stated in detail the financial and administrative documentation each team was required to provide as well as the technical topics it was to address and the criterion by which its technical responses would be evaluated.

Consistent with standard practice, the ITP specifically stated that by submitting a final Proposal each team waived a protest to the procurement process to that point in time.

During the period of time the five teams were preparing their Proposals, they took full advantage of the opportunity to submitting RFIs. Authority staff supported by their financial, legal and program management consultants responded to more than 750 RFIs in total. In the event a RFI raised a valid issue requiring a modification to the RFP, after due consideration by senior Authority staff, changes to the RFP were made by way of Addenda to the RFP.

In addition to communications from the five teams through RFIs, the Authority conducted three different “One-on-One” sessions with the teams. These sessions, common in design-build procurements, involved each team separately and confidentially bringing their key personnel to the Authority office to meet with senior Authority staff to discuss the technical or procedural elements of the RFP. One-on-One sessions are valuable tools for communication to assure that the procurement is fair and that at the end of the process the best possible result for the state is obtained. As a result of the sessions, certain modifications were made to the RFP by way of Addenda and taken into consideration by the Proposers in the final Proposals.

As a result of information received in RFIs or One-on-One sessions, and as a result of development and refinements in the Preliminary Engineering work of the Regional Consultants, a total of nine addenda were made to the RFP. Each addendum was posted on the Authority’s public website.

#### *Evaluation of the Technical Proposals*

To ensure the integrity and confidentiality of the evaluation process, prior to receipt of proposals the Authority worked with the Department of General Services (DGS) to obtain use of excess state-owned office space in a secure building conveniently located within walking distance of the Authority’s offices.

On January 18, 2013 Proposals were received at the Authority’s office from all five design-build teams. As required by the terms of the Instructions to Proposers, within three days of the Proposal due date, all five teams delivered their Escrowed Proposal Documents to the secure location at which the evaluation process was conducted.

Upon receipt of the five Proposals, and pursuant to the procedure established in the ITP, Authority staff separated the sealed price proposal envelopes for each of the five teams and placed them in a locked safe located in the Authority’s offices. The key to the safe remained under the control of Authority staff at all times.

With the sealed price envelopes secure in the Authority’s office, Authority staff transported the binders containing the teams’ Technical Proposals to the secure location. Procedures were instituted to control ingress and egress to the location. Each individual who would participate in the process received training in the process with particular emphasis on maintaining confidentiality in the process. Each individual participating in the process signed an Evaluation Confidentiality Agreement as well as a Disclosure Statement to ensure that he or she had no financial interest in the outcome of the award.

Review of the technical proposals occurred in three stages as follows:

- “Pass/Fail” review to ensure that all administrative requirements for the Proposals were met and to ensure that there had been no material changes in the financial position of the teams since they submitted their Statements of Qualifications which would negatively affect their ability to deliver CP 1;
- Review of the Technical Proposal by the “Technical Advisory Panel” for evaluation of the technical responses according to the stated evaluation criteria;
- Final review of the Technical Proposal by the “Evaluation Selection Committee” which had ultimate responsibility for all aspects of the evaluation process.

The Pass/Fail review for responsiveness, administrative compliance and financial capability was conducted by two committees, each chaired by a senior member of the Authority’s staff supported by financial, legal and program management consultants to the Authority.

The Pass/Fail committee reviewing the five proposals found that each was responsive and met all of the administrative requirements in the ITP.

The Pass/Fail committee reviewing the financial capabilities of the five proposers found that none had material changes in their financial status which would affect their ability to deliver CP 1.

The Technical Advisory Panel was chaired by a senior member of the Authority staff. As stated in the ITP, the Proposers were asked to technically address six specific topics. Consideration of each topic was managed by a public employee. Both the chair of the Technical Advisory Panel and the manager of each technical topic were supported by the financial, legal and program management consultants of the Authority.

Using the criteria given to the Proposers the Technical Advisory Panel reviewed in detail the technical responses provided by each of the five teams to each of the six topics. Each response was evaluated against the pre-established, pre-announced criteria.

The final report of the chair of the Technical Advisory Committee was completed and transmitted to the chair of the Evaluation Selection Committee (ESC).

The ESC consisted of five members, all public employees. It was chaired by the Authority’s Risk Manager, a senior member of Authority staff. The other members were senior Authority staff and senior staff at other public agencies.

Pursuant to the established procedures, the ESC received and considered the report of the chair of the Technical Advisory Committee. As the entity with ultimate responsibility to evaluate the Technical Proposals, the ESC conducted its own independent review of the Proposals.

Using a 100 point scale, the ESC assigned a numeric score on each of the five Proposals, and then, according to the established formula reduced that number proportionately based on the 30%

weight given the technical component. The scores derived in this manner were as follows:

- California Backbone Builders – 27.71 of 30 points
- California High Speed Rail Partners – 20.70 of 30 points
- California High Speed Ventures – 21.41 of 30 points
- Dragados/Samsung/Pulice – 26.13 of 30 points
- Tutor Perini/Zachry/Parsons – 20.55 of 30 points

Higher technical scores were due in part to the fact that certain Proposers significantly advanced their design during the proposal phase beyond what was required in the RFP, thus allowing them to better address the procurement evaluation criteria. All proposers met all technical criteria and requirements. Pursuant to the established procedures, the chair of the ESC transmitted the report of the ESC to the CEO, thus completing the evaluation of the Technical Proposals.

#### *Evaluation of the Price Proposals*

Upon the conclusion of the technical evaluation, evaluation on the price component of the Proposals took place.

On April 12, 2013 the chairman of the Evaluation Selection Committee supported by legal counsel and FRA and DOF representatives retrieved the sealed price envelopes from the Authority safe. The envelopes were opened and the contents reviewed. Related documents such as the Proposer's Proposal Bond, part of the price proposal were reviewed.

Pursuant to the established procedures, each Proposal was given a numeric score with the lowest bidder assigned the full 70 points commensurate with the 70% weight given the price element in the evaluation process. Each other Proposer received a proportionately lower score for the price component. The scores derived in this manner were as follows:

- California Backbone Builders – 50.49 of 70 points
- California High Speed Rail Partners – 54.59 of 70 points
- California High Speed Ventures – 44.87 of 70 points
- Dragados/Samsung/Pulice – 63.55 of 70 points
- Tutor Perini/Zachry/Parsons – 70.00 of 70 points

Combining the Technical score with the Price score, the following apparent Best Value results were announced.

- California Backbone Builders – 78.20 of 100 points
- California High Speed Rail Partners – 75.29 of 100 points
- California High Speed Ventures – 66.27 of 100 points
- Dragados/Samsung/Pulice – 89.68 of 100 points
- Tutor Perini/Zachry/Parsons – 90.55 of 100 points

Accordingly, Tutor Perini/Zachry/Parsons, a Joint Venture was found to be the apparent Best Value Proposer.

### *Authority Review of Apparent Best Value Proposal*

The selection procedures stated in the Instructions to Proposers allow the Authority to review the Proposal of the apparent Best Value Proposer and to conduct limited negotiations with it. During the limited negotiations elements of the Proposal can be clarified and minor elements of work can be added or deleted from the contract.

In limited negotiations that status of environmental clearances was discussed. It was again confirmed that no construction will occur at any site that has not been environmentally cleared.

In addition to meeting the baseline specifications in the RFP, the Proposal of Tutor Perini/Zachry/Parsons Proposal offered certain innovations which have the potential to achieve contract savings. Included in these innovations is an Alternative Technical Concept (ATC) proposed by the joint venture as well as a commitment to a six-month early completion date. As discussed later in this memo, all ATCs included in the five Proposals are able to be incorporated into the program, as appropriate.

Two elements of CP 1 work were topics of discussion.

### *Fresno-Bakersfield Portion of CP 1 (1C)*

As stated above, the RFP and the design-build contract have been carefully drafted to ensure that no construction occurs at any site that has not been environmentally cleared.

The southern end of CP 1 for a distance of approximately one mile is evaluated as part of the Fresno-Bakersfield Project Section Revised Draft EIR/Supplemental Draft EIS. The public comment period for the document ended October 19, 2013, and a final version of the EIR/EIS is now being prepared. As a result, the southern end of CP 1 has not been environmentally cleared. Work in this specific area, designated "CP 1C" in the RFP, will not commence until Notice to Proceed (NTP) 3 is given by the Authority. NTP 3 will not be issued by the Authority until the Fresno-Bakersfield EIR/EIS is formally approved by the Authority and a Record of Decision is published by the FRA.

### *Belmont Street and Olive Street Portion of CP 1*

Attached hereto is "Addendum 2013-1 to the Final Merced to Fresno Project Section EIR/EIS". This document summarizes the Authority's analysis of the environmental impacts associated with design refinements proposed at W. Olive Ave. and W. Belmont Ave. in the city of Fresno compared to the roadway overcrossings originally studied and approved in the Merced-Fresno Final EIR/EIS. The Addendum provides a summary of the modifications, and explains why no subsequent EIR is necessary for issuance of NPT 2.

### *About Tutor Perini/Zachry/Parsons*

As stated above, the Tutor Perini/Zachry/Parsons joint venture consists of Tutor Perini Corporation, Zachry Construction Corp. and Parsons Transportation Group, Inc.



Tutor Perini Corporation is a heavy civil construction company headquartered in California with fourteen offices in California. It has 1,300 employees in California and has been a licensed general contractor in the state for 65 years. In the last 20 years it has delivered more than 100 projects in California with a combined value in excess of \$10 billion.

Zachry Construction Corp., a Texas corporation, has a major presence in the heavy rail industry. It not only constructs rail infrastructure but also owns and operates the FRA-regulated Pecos Valley Southern Railroad.

Parsons Transportation Group, Inc. is a business unit of Parsons Corporation headquartered in Pasadena, California. It has 1,600 employees in California including more than 400 registered professional engineers in the state. It has been the lead designer and/or joint venture partner on more than 60 transportation design-build projects in the last 20 years with a combined value in excess of \$20 billion.

In addition to the joint venture partners, Tutor Perini/Zachry/Parsons has included numerous subconsultants and subcontractors on its team including small, disadvantaged and disabled veteran business enterprises and is committed to fully complying with the Authority's Small Business Policy.

#### *Calculation of CP 1 Contract Value*

The total contract allotment of the CP 1 design-build contract will be comprised of various components. Specifically, the total contract value must include:

- The lump sum Contract Price bid by the Best Value Proposer;
- The unit price allowance bid by the Best Value Proposer for hazardous soil remediation;
- Adjustments to Contract Price for minor work added or deleted in limited negotiations;
- Provisional sums for utilities, hazardous materials and construction contract work;
- Contract contingency.

Each of these components of the total contract allotment will be discussed.

Contract Price Bid Amount: The lump sum Contract Price bid of the Best Value Proposer was \$969,988,000.

Unit price for hazardous soil remediation: Based on unit price allowance, the Best Value Proposer bid \$15,154,530 for these items. Proposers were scored based on the lump sum Contract Price bid plus the hazardous soil remediation bid. Tutor Perini/Zachry/Parsons' combined bid was \$985,142,530.

Adjustments to lump sum Contract Price Bid Amount: There have been no adjustments to the base bid for minor work added or deleted in limited negotiations.

Provisional Sums: Provisional sums are frequently included in major infrastructure projects to provide an allocation for items of work that must be performed but cannot be quantified in

advance. An example is contaminated material in a building where access cannot be gained prior to the Proposal due date.

In the case of CP 1, the RFP provided the Proposers with the following provisional sums:

- Utilities - \$25,000,000
- Hazardous materials in buildings - \$8,000,000
- Construction contract work - \$20,000,000

Accordingly, the total sum of \$53,000,000 is to be included in the contract allotment for these provisional sums.

Contingency: A contingency is an amount identified by public agencies to plan in advance for cost items reasonably likely to occur but which cannot be fully described and estimated in the RFP. A contingency is developed by placing a numeric cost on the contingent event and then discounting the cost proportionately to the likelihood that it will occur. Specialized computer programs and processes have been developed in the infrastructure industry to analyze and calculate the appropriate total contingency after considering numerous individual contingent events.

Authority staff has completed a risk-based analysis of various contingencies that could impact CP 1. The proposed contingency budget is intended to account for known risks with uncertain impacts as well as provide some measure of protection against as yet unrecognized costs. The advantage of this risk-based contingency approach and its employment of Monte Carlo simulations is that it provides information about the level of confidence (probability of sufficiency of contingency) that such assigned contingency provides. This probabilistic assessment of project risk provides a means for establishing project budgets with varying levels of confidence against cost overruns. The risk-based contingency analysis is consistent with GAO and FTA risk management guidance and goes beyond standard contingency practices employed by most public agencies, including the California Department of Transportation (Caltrans). Caltrans has delegated authority to establish contract contingencies up to 10 percent and typically does not use a risk-based analysis to validate contingency. The CP1 risk-based contingency analysis concludes that a contingency of \$98,000,000 reasonably represents a risk-adjusted sum for foreseeable contingencies. This sum represents less than 10% of the Contract Price with Provisional Sums.

In summary, the total contract allotment is as follows:

- Lump sum Contract Price - \$969,988,000
- Unit price allowance for Hazardous soil remediation - \$15,154,530
- Provisional sums - \$53,000,000
- Contingency - \$98,000,000

Total CP 1 contract allotment is up to \$1,136,142,530.

Contract Savings: Changes during the course of final design and construction can include contract price reductions for various reasons.

In addition to the ATC submitted by the successful design-build contractor, upon agreement to pay the stipend to the unsuccessful proposers, the Authority gains all rights to the contents of their ATCs. These ATCs also have the potential to be incorporated into the final design and construction of CP 1 to achieve project improvements and costs savings.

Authority staff also intends to explore other potential cost reductions with the selected Proposer.

#### *Notice of Contract Recommendation*

Pursuant to the provisions of the Instructions to Proposers, on May 17, 2013, Authority staff gave its Notice of Recommendation of Contract Award to the five design-build teams and posted this Notice on its public website. Issuance of this Notice commenced a five-day period in which unsuccessful design-build teams could protest the Best Value award to Tutor Perini/Zachry/Parsons. More than five days have elapsed since issuance of the Notice and no protest from an unsuccessful design-build team has been received by the Authority.

#### **Recommendation**

Staff recommends that the Board approve the total CP1 contract allotment as follows:

- Contract Price plus hazardous material unit price allowance totaling \$985,142,530;
- Provisional sums of \$53,000,000;
- Contingency of \$98,000,000
- Total contract allotment of up to 1,136,142,530.

Staff recommends that the Board authorize the CEO to finalize and execute the final, conformed design-build contract for CP 1 with Tutor Perini/Zachry/Parsons, a Joint Venture.

Staff further recommends that the Board authorize the CEO to manage the CP 1 design-build contract within the total contract allotment with regular reporting to the Finance and Audit Committee on contract status and progress.

#### **Attachments:**

Addendum 2013-1 to the Final Merced to Fresno Project Section EIR/EIS